

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing Of Claims:

Please amend the claims as follows:

1. (Currently Amended) A computer system for applying mode bias to an input field of an electronic document of an application, the system comprising:
 - a mark-up language schema registry in communication with the application, wherein the mark-up language schema registry comprises a schema database and a grammar database, wherein the schema database comprises a plurality of schema names and a plurality of pointers to grammars the grammar database associated with the plurality of schema names, ~~and wherein the pointers point to the grammar database~~ comprising a plurality of grammars, wherein ~~at least one of the plurality of grammars comprises~~ comprise a first grammar associated with a union of data from a plurality of user data sources, the union of data from the plurality of user data sources being a context free grammar built from a union of a contacts list, a global address book, and a list of first and last names; and
 - an input engine in communication with the mark-up language schema registry, wherein the mark-up language schema registry is configured to:
 - receive a schema name based on a hierarchical analysis of a textual input to the input field from the application,

locate a corresponding grammar from among the plurality of grammars comprising one of: a regular expression and a statistical language model, the corresponding grammar having a language setting and a locale setting, and the corresponding grammar being associated with the schema name, and

send the corresponding grammar to the input engine, wherein the corresponding grammar defines an appropriate input for the input field, and wherein the schema in the mark-up language schema [[the]] registry is associated with [[a]] the corresponding grammar by one of: referring to the corresponding grammar directly, mapping to the corresponding grammar, and encoding the corresponding grammar within the schema.

2. (Original) The system of claim 1 wherein the input engine is a speech recognition engine.
3. (Original) The system of claim 1 wherein the input engine is a handwriting recognition engine.
4. (Original) The system of claim 1 wherein the input engine is an input method editor (IME).
5. (Previously Presented) The system of claim 1 wherein the input engine is a keypad of a cellphone.

6. (Previously Presented) The system of claim 1 wherein the input engine is a gesture-based input method.

7. (Previously Presented) The system of claim 1 wherein the input engine is a sign language recognition engine.

8. (Canceled)

9. (Currently Amended) The system of claim 1 wherein the corresponding grammar is [[a]] the context free grammar.

10. (Currently Amended) The system of claim 1 wherein the corresponding grammar is a context sensitive grammar.

11. – 13. (Cancelled)

14. (Currently Amended) The system of claim 1 wherein the corresponding grammar defines [[an]] the appropriate input for the input field by defining a list of acceptable inputs for the input field.

15. (Currently Amended) The system of claim 1 wherein the input engine uses the corresponding grammar to receive input from a user of the application.

16. (Currently Amended) The system of claim 15 wherein the input engine further uses the corresponding grammar to bias the user's input toward a correct input for the input field.

17. (Currently Amended) The system of claim 15 wherein the input engine compares the input of the user to the corresponding grammar to determine whether the input matches and is an appropriate input.

18. (Previously Presented) The system of claim 17 wherein if the input engine determines that the input of the user does not match an appropriate input, then the input engine rejects the input and causes the application to display an error message to the user.

19. (Previously Presented) The system of claim 1 wherein the mark-up language schema registry is in communication with the application through a text service framework.

20. (Currently Amended) A computer system for applying mode bias to an input field of an electronic document of an application, the system comprising:

a mark-up language schema registry in communication with the application, the mark-up language schema registry operable to point to code for dynamically generating a plurality of grammars ~~comprising one of: regular expressions and statistical language models~~, wherein the plurality of grammars are used to define an appropriate input for

the input field, ~~wherein at least one of the plurality of grammars comprises a union of data from a plurality of user data sources, and~~ wherein each mark-up language schema in the registry is associated with a corresponding grammar by one of: referring to the corresponding grammar directly and mapping to the corresponding grammar, and encoding the corresponding grammar within the schema, and wherein the plurality of grammars comprise:

a first grammar associated with a union of data from a plurality of user data sources, the union of data from the plurality of user data sources being a context free grammar built from a union of a contacts list, a global address book, and a list of first and last names,

a second grammar built exclusively from a contents list of the contacts list,

a third grammar built exclusively from a contents list of the global address list,

a fourth grammar associated with regular expressions, and

a fifth grammar associated with statistical language models;

an input engine in communication with the mark-up language schema registry, wherein the mark-up language schema registry receives a schema name from the application through a text service framework, locates an identifier of ~~[[a]]~~ the corresponding grammar among the plurality of grammars associated with the schema name and sends the located identifier of the corresponding grammar to the input engine, wherein the input engine uses at least one of the plurality of grammars to bias input from a user of the application toward a correctly formatted input, wherein if the input engine determines that the input of the user does not match an appropriate input,

then the input engine recommends an alternate input, wherein the input engine is at least one of the following: a speech recognition engine, a handwriting recognition engine, an input method editor, a phone keypad, a gesture-based input method, a keyboard, and a sign language recognition engine; and

a recognizer library in communication with the application, wherein the recognizer library is configured to apply a semantic category to the textual input.

21. (Currently Amended) A computer-implemented method for applying mode bias to an input field of an electronic document of an application program module, the method comprising:

determining that an insertion point is within the input field;

determining a mode bias schema that is attached to the input field, wherein the determination of ~~[[a]]~~ the mode bias schema uses a ranked list of mode bias schemas;

dynamically generating a plurality of grammars based on the input field and a mark-up language schema registry, ~~wherein dynamically generating at least one of the plurality of grammars comprises collecting data from a plurality of user data sources,~~ wherein the plurality of grammars define an appropriate input for the input field, ~~[[and]]~~ wherein each of the plurality of grammars ~~comprise one of: a regular expression and a statistical language model,~~ has a language setting and a locale setting~~[[,]]~~ and is associated with a schema name, and wherein the plurality of grammars comprise:

a first grammar associated with a union of data from a plurality of user data sources, the union of data from the plurality of user data sources being a

context free grammar built from a union of a contacts list, a global address book, and a list of first and last names,

a second grammar built exclusively from a contents list of the contacts list,

a third grammar built exclusively from a contents list of the global address list,

a fourth grammar associated with regular expressions, and

a fifth grammar associated with statistical language models;

determining ~~[[a]]~~ an appropriate grammar from the generated plurality of ~~one or more~~ grammars that is associated with the mode bias schema; and

sending the appropriate grammar associated with the mode bias schema to an input engine wherein the input engine uses the appropriate grammar associated with the mode bias schema to receive the appropriate input for the input field.

22. (Currently Amended) The method of claim 21 further comprising: receiving text at the insertion point and determining whether the received text matches an input type defined by the appropriate grammar and, if so, then displaying the text in the input field.

23. (Currently Amended) The method of claim 22 further comprising the step of:

if the text received at the insertion point does not match the input type defined by the appropriate grammar, then displaying an error message.

24. (Currently Amended) The method of claim 21 wherein determining [[a]] the appropriate grammar that is associated with the mode bias schema comprises:
cross-referencing the mode bias schema in a schema database to determine the appropriate grammar that is associated with the mode bias schema.

25. (Currently Amended) The method of claim 24 wherein sending the appropriate grammar to [[an]] the input engine comprises retrieving the grammar from a grammar database and sending the grammar to the input engine.

26. – 30. (Cancelled)

31. (New) The method of Claim 1, wherein the plurality of grammars further comprise a second grammar built exclusively from a content of the contacts list.

32. (New) The method of Claim 1, wherein the plurality of grammars further comprise a second grammar built exclusively from a content of the global address list.

33. (New) The method of Claim 1, wherein the plurality of grammars further comprise a second grammar associated with regular expressions.

34. (New) The method of Claim 1, wherein the plurality of grammars further comprise a second grammar associated with statistical language models.